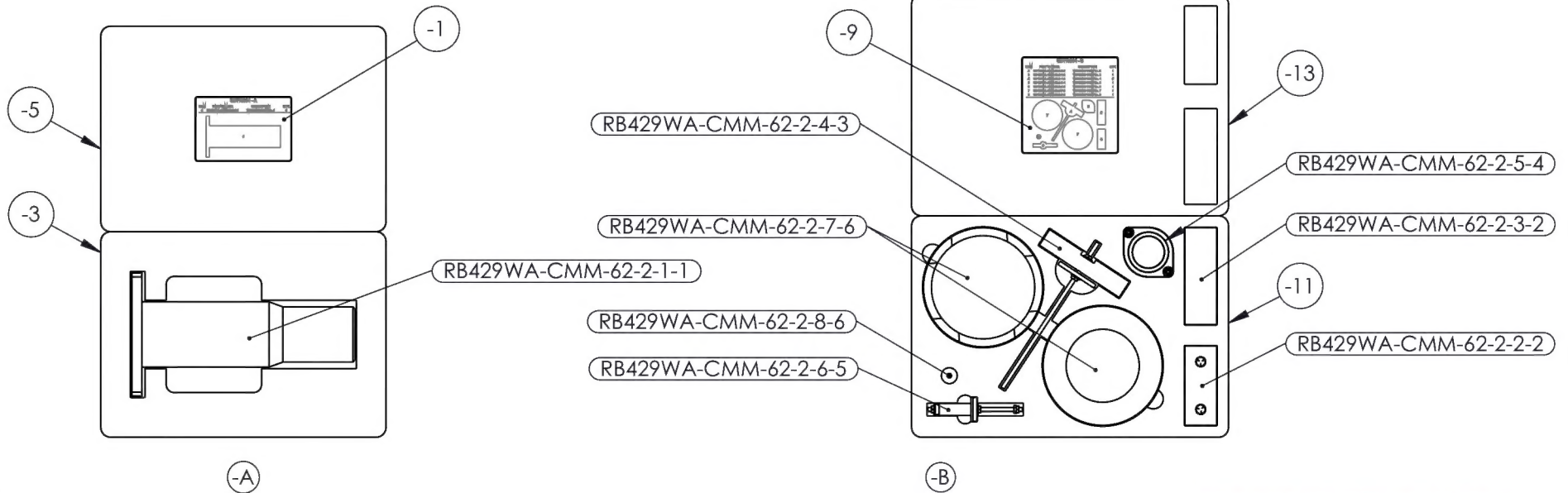


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		RELEASED FOR PRODUCTION.	9/26/2016	DPD	JAG
2	17-0042	ADDED NOTES 2 & 3. -A, -B ADDED. -1 REMOVED WORKAID ITEM No. 2 THRU 8 FROM PLACARD, CH'D DIM WAS 7.00 IS 4.00. -3 MODIFIED TO CONTAIN ONLY WORKAID ITEM No. 1; REPLACED TO FIT PELICAN IM2450 CASE. -5 REPLACED TO FIT PELICAN IM2450 CASE. -7 CH'D B/O INFO WAS PELICAN #APP-1610-E IS PELICAN #APP-IM2450-E. -9, -11, -13, -15 ADDED.	2/21/2017	SM	JAG



**SEE ATTACHED DEVIATION**

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
	X		-A	1	ASSEMBLY A			1
X			-B	1	ASSEMBLY B			1
	1		RB429WA-CMM-62-2-1-1		WORKAID ITEM No. 1			1
1			RB429WA-CMM-62-2-2-2		WORKAID ITEM No. 2			1
1			RB429WA-CMM-62-2-3-2		WORKAID ITEM No. 3			1
1			RB429WA-CMM-62-2-4-3		WORKAID ITEM No. 4			1
1			RB429WA-CMM-62-2-5-4		WORKAID ITEM No. 5			1
1			RB429WA-CMM-62-2-6-5		WORKAID ITEM No. 6			1
1			RB429WA-CMM-62-2-7-6		WORKAID ITEM No. 7			1
1			RB429WA-CMM-62-2-8-6		WORKAID ITEM No. 8			1
	1		-1		ASSEMBLY A CONTENTS PLACARD	PLASTIC		2
	1	B/O	-3		ASSEMBLY A BOTTOM FOAM	ETHAFOAM 220, BLACK	6.40 X 13 X 18 (CASE SOLUTIONS)	3
	1	B/O	-5		ASSEMBLY A TOP FOAM	ETHAFOAM 220, BLACK	1.87 X 13 X 18 (CASE SOLUTIONS)	4
	1	B/O	-7		ASSEMBLY A CASE	PLASTIC	PELICAN #APP-IM2450-E	N/S
1			-9		ASSEMBLY B CONTENTS PLACARD	PLASTIC		5
1		B/O	-11		ASSEMBLY B BOTTOM FOAM	ETHAFOAM 220, BLACK	19.88 X 13.88 X 7.88 (CASE SOLUTIONS)	6
1		B/O	-13		ASSEMBLY B TOP FOAM	ETHAFOAM 220, BLACK	19.88 X 13.88 X 1.78 (CASE SOLUTIONS)	7
1		B/O	-15		ASSEMBLY B CASE	PLASTIC	PELICAN #APP-IM2620-E	N/S
1	1	B/O			PLACARD	ALUMINUM	RB41011	N/S
ASSY -B	ASSY -A							

**NOTES:**

1. REFERENCE FIGURE 62-2.
2. ENGRAVE RBT18004-A ON PLACARD USED IN ASSEMBLY A.
3. ENGRAVE RBT18004-B ON PLACARD USED IN ASSEMBLY B.



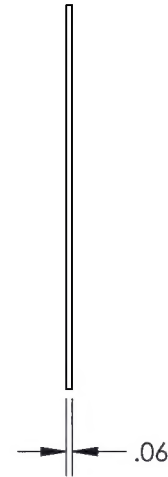
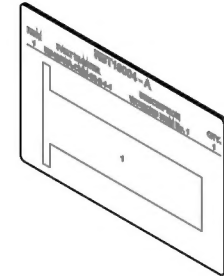
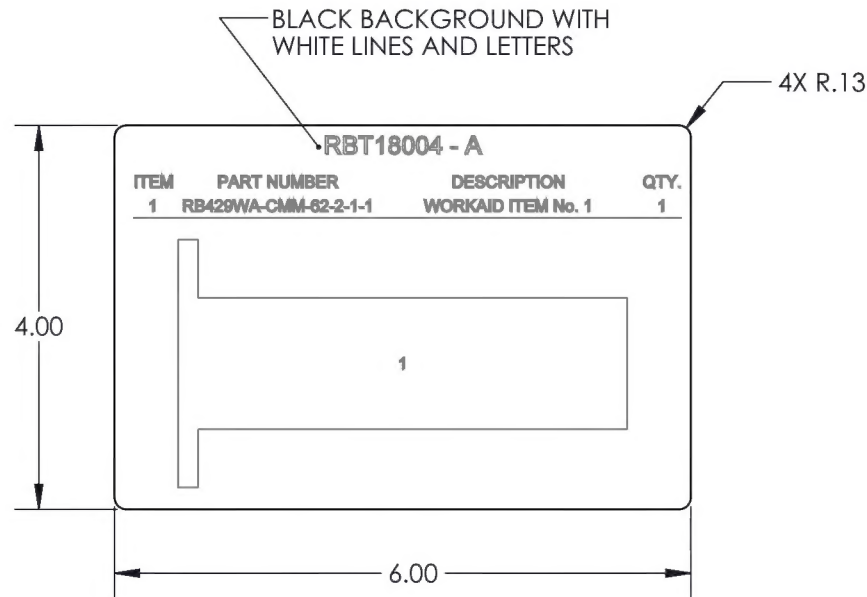
**TITLE** MAIN ROTOR HUB ASSEMBLY - WORKAID ITEMS No. 1 THROUGH No. 8

**DWG NO.** RBT18004 **REV** 2

<b>MAT'L</b>		<b>UNLESS OTHERWISE SPECIFIED</b>	
<b>TREAT</b>		<b>DIMENSIONS ARE IN INCHES</b>	
<b>FINISH</b>		<b>.XXX ± .005 FRACTIONS ± 1/8</b>	
<b>SPEC</b>		<b>.XX ± .01 ANGLES ± 5°</b>	
<b>DRAWN BY:</b> DUERFELDT		<b>.X ± .1 SURFACES = 125°</b>	
<b>CHECKED:</b> MACKOVJAK		<b>1. BREAK ALL SHARP EDGES</b>	
<b>OPPS APPR:</b> ANDERSON		<b>.015 x 45° OR .015R</b>	
<b>QA APPR:</b> LINDSAY		<b>2. DIMENSIONAL LIMITS APPLY AFTER PLATING</b>	
<b>APPROVED:</b> GILBERT		<b>3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009</b>	
<b>SCALE</b> 1:10		<b>USED ON MODEL</b>	
<b>DATE</b> 9/15/2016		<b>BELL 429</b>	
		<b>SHEET 1 OF 7</b>	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0042	-1 REMOVED WORKAID ITEM No. 2 THRU 8 FROM PLACARD, CH'D DIM WAS 7.00 IS 4.00.	2/21/2017	SM	JAG



NOTE:  
USE PDF.

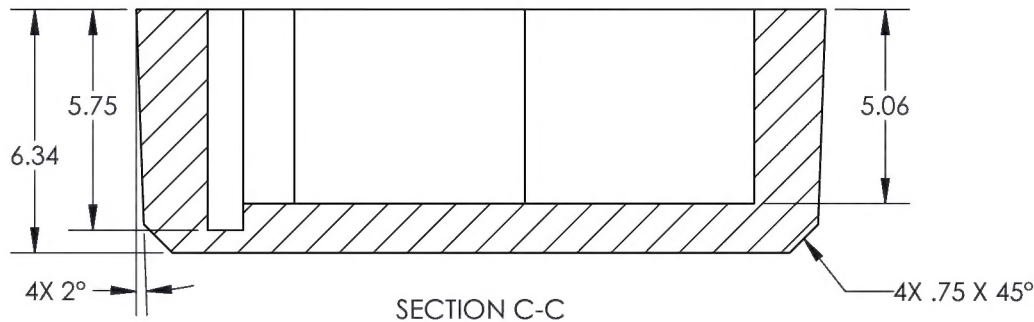
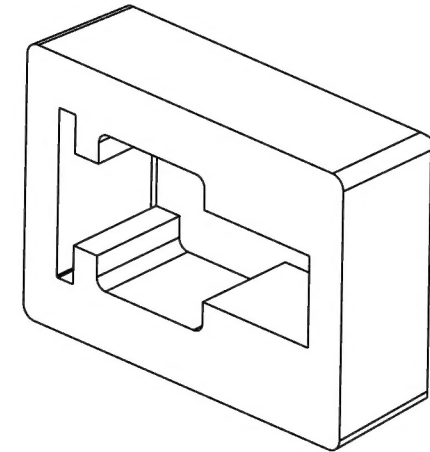
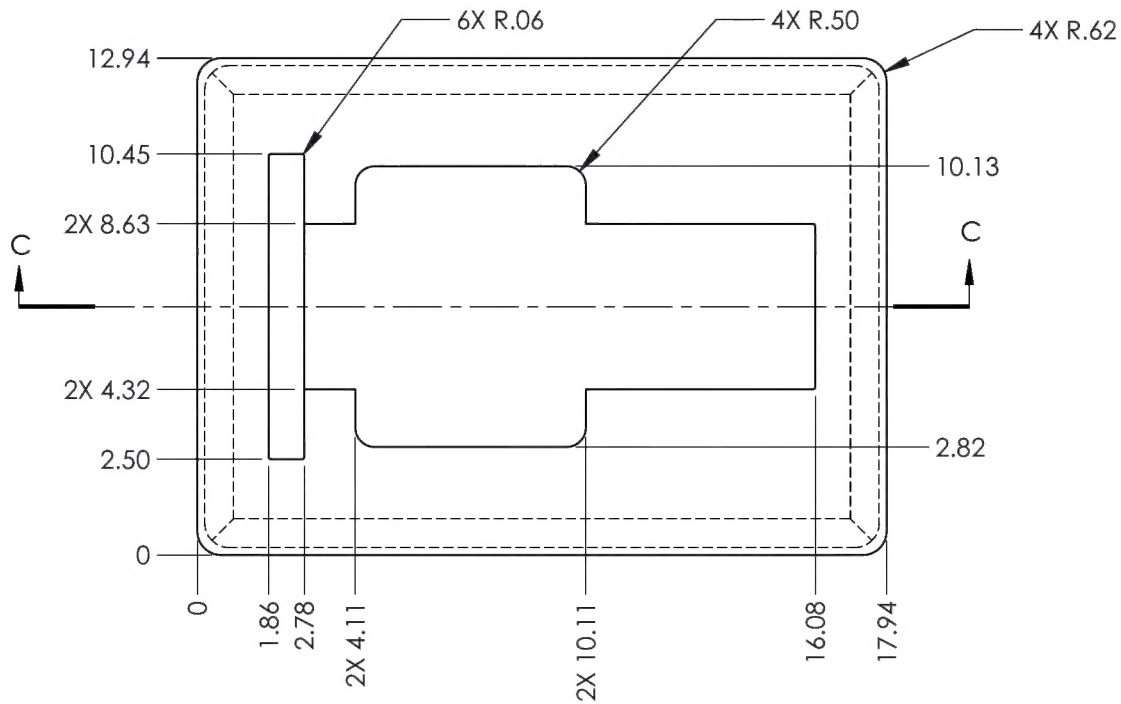
**SEE ATTACHED DEVIATION**

-1  
ASSEMBLY A CONTENTS PLACARD

<b>DART AEROSPACE</b>	
TITLE MAIN ROTOR HUB ASSEMBLY - WORKAID ITEMS No. 1 THROUGH No. 8	
DWG NO. RBT18004-1	REV 2
MAT'L PLASTIC	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH	.XXX ± .010 FRACTIONS ± 1/8
SPEC	.XX ± .03 ANGLES ± 1°
	.X ± .1 SURFACES = 125° ✓
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES
CHECKED: MACKOVJAK	.015 x 45° OR .015R
OPPS APPR: ANDERSON	2. DIMENSIONAL LIMITS APPLY
QA APPR: LINDSAY	AFTER PLATING
APPROVED: GILBERT	3. INTERPRET DIM AND TOL PER
	ASME Y14.5M-2009
SCALE 1:2	DATE 9/15/2016
	SHEET 2 OF 7

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0042	-3 MODIFIED TO CONTAIN ONLY WORKAID ITEM No. 1; REPLACED TO FIT PELICAN IM2450 CASE.	2/21/2017	SM	JAG



(-3)

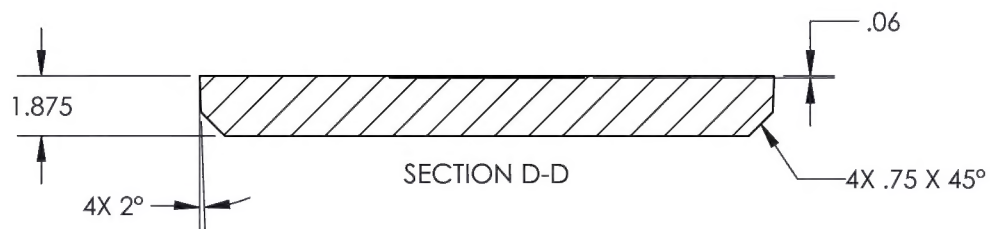
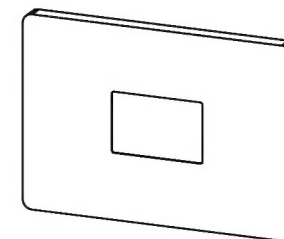
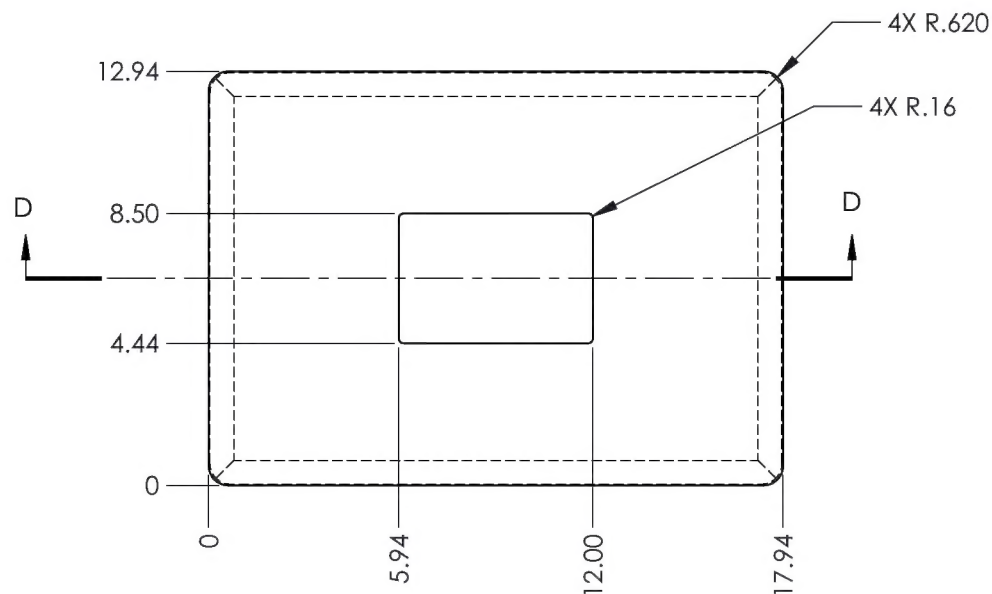
ASSEMBLY A BOTTOM FOAM

SEE ATTACHED DEVIATION

<b>DART AEROSPACE</b>	
TITLE MAIN ROTOR HUB ASSEMBLY - WORKAID ITEMS No. 1 THROUGH No. 8	
DWG NO. RBT18004-3	REV 2
MATERIAL ETHAFOAM 220, BLACK	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX ± .010 FRACTIONS ± 1/8	
.XX ± .03 ANGLES ± 1°	
.X ± .1 SURFACES = 125/✓	
SPEC 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: MACKOVJAK	BELL 429
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:5	DATE 9/15/2016
SHEET 3 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	17-0042	-5 REPLACED TO FIT PELICAN IM2450 CASE.	2/21/2017	SM	JAG



(-5)

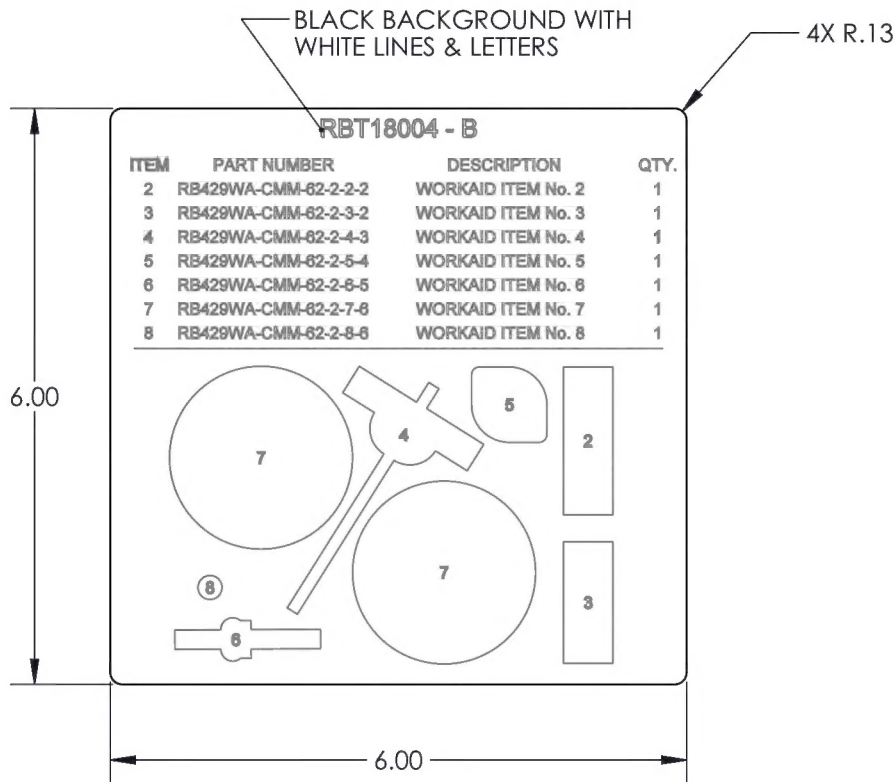
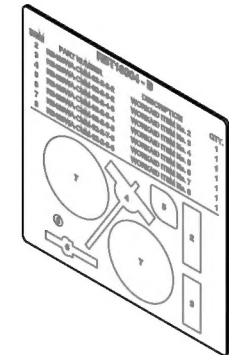
ASSEMBLY A TOP FOAM

SEE ATTACHED DEVIATION

<b>DART</b> AEROSPACE	
TITLE MAIN ROTOR HUB ASSEMBLY - WORKAID No. 1 THROUGH No. 8	
DWG NO. RBT18004-5	REV 2
MAT'L ETHAFOAM 220, BLACK	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
.XXX ± .010 FRACTIONS ± 1/8	
.XX ± .03 ANGLES ± 1°	
.X ± .1 SURFACES = 125°	
SPEC 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DRAWN BY: DUERFELDT	USED ON MODEL
CHECKED: MACKOVJAK	BELL 429
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	
APPROVED: GILBERT	
SCALE 1:6	DATE 9/15/2016
SHEET 4 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0042	-9 ADDED FOR WORKAID ITEMS 2-8.	2/21/2017	SM	JAG



NOTE:  
USE PDF.

SEE ATTACHED DEVIATION

<b>DART AEROSPACE</b>	
TITLE MAIN ROTOR HUB ASSEMBLY - WORKAID ITEMS No. 1 THROUGH No. 8	
DWG NO. RBT18004-9	REV 2
MAT'L PLASTIC	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX ± .010 FRACTIONS ± 1/8
FINISH	.XX ± .03 ANGLES ± 1°
SPEC	.X ± .1 SURFACES = 125 ✓
DRAWN BY: DUERFELDT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: MACKOVJAK	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	BELL 429
SCALE 1:2	DATE 9/15/2016
SHEET 5 OF 7	

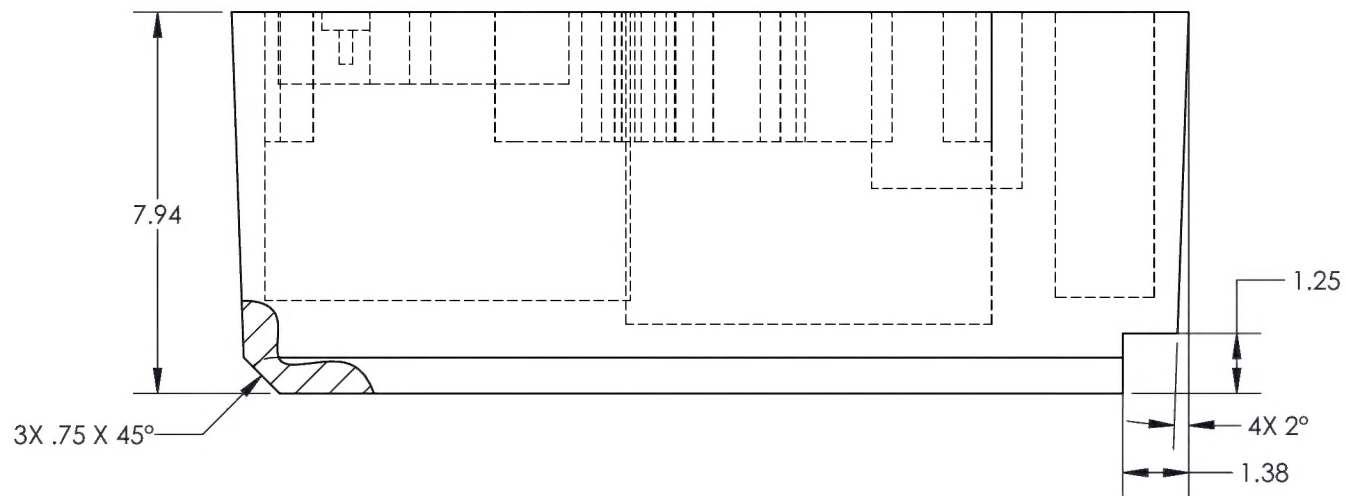
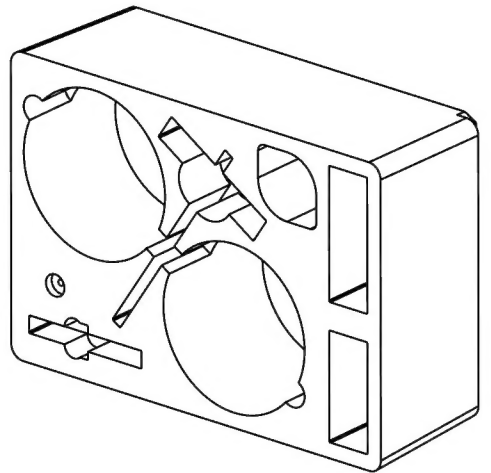
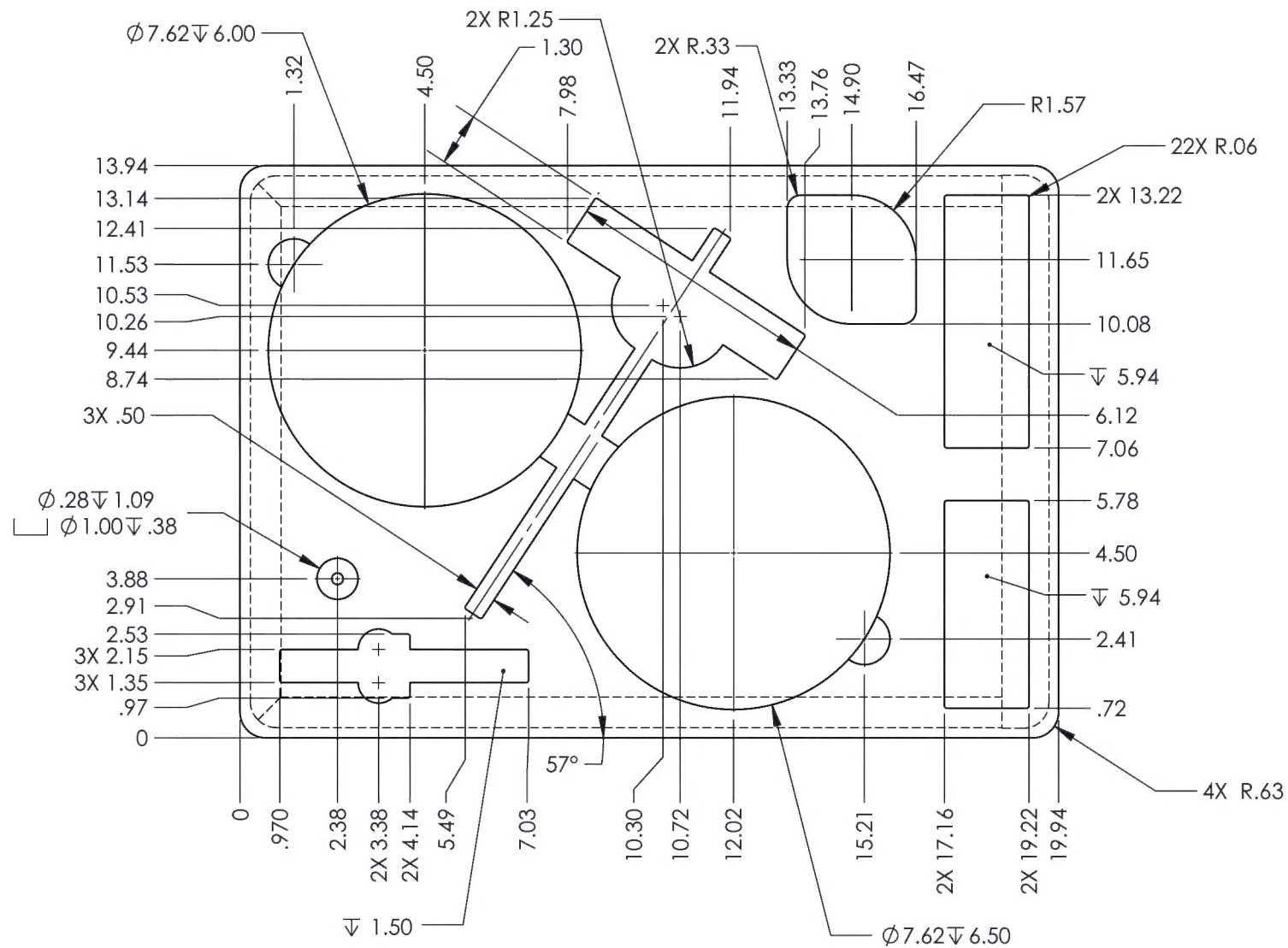
(9)

ASSEMBLY B CONTENTS PLACARD



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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0042	-11 ADDED FOR WORKAID ITEMS 2-8.	2/21/2017	SM	JAG



(-11)

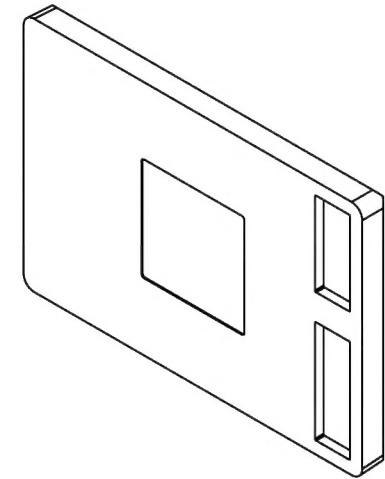
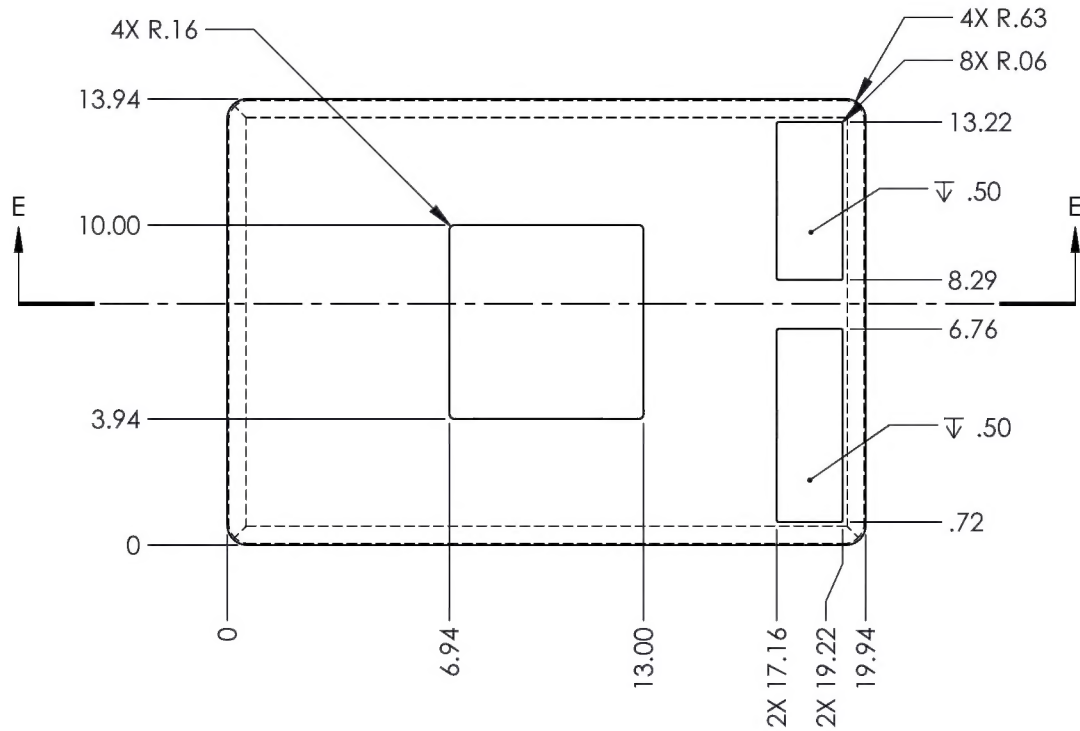
ASSEMBLY B BOTTOM FOAM

SEE ATTACHED DEVIATION

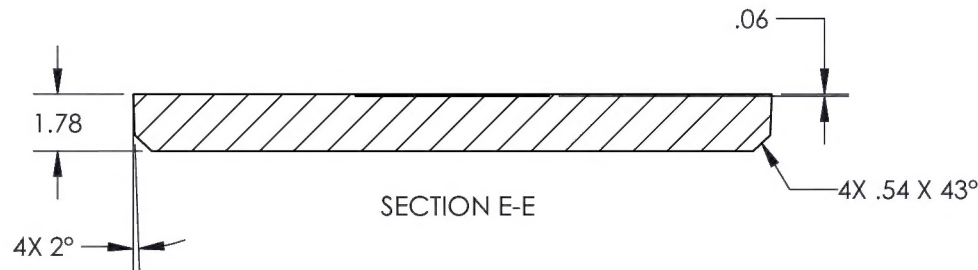
DART AEROSPACE			
TITLE MAIN ROTOR HUB ASSEMBLY - WORKAID ITEMS No. 1 THROUGH No. 8			
DWG NO. RBT18004-11			REV 2
MAT'L ETHAFOAM 220, BLACK		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
HEAT TREAT		.XXX ± .010 FRACTIONS ± 1/8	
FINISH		.XX ± .03 ANGLES ± 1°	
SPEC		.X ± .1 SURFACES = 125/	
DRAWN BY: DUERFELDT		1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	
CHECKED: MACKOVJAK		2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
OPPS APPR: ANDERSON		3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
QA APPR: LINDSAY		USED ON MODEL	
APPROVED: GILBERT		BELL 429	
SCALE 1:4	DATE 9/15/2016	SHEET 6 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0042	-13 ADDED FOR WORKAID ITEMS 2-8.	2/21/2017	SM	JAG



SEE ATTACHED DEVIATION



(-13)

ASSEMBLY B TOP FOAM

<b>DART</b> AEROSPACE	
TITLE MAIN ROTOR HUB ASSEMBLY - WORKAID ITEMS No. 1 THROUGH No. 8	
DWG NO. RBT18004-13	REV 2
MAT'L ETHAFOAM 220, BLACK	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
FEAT .XXX ± .010 FRACTIONS ± 1/8	
TREAT .XX ± .03 ANGLES ± 1°	
FINISH .X ± .1 SURFACES = 125°	
SPEC	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: MACKOVJAK	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	BELL 429
SCALE 1:6	DATE 9/15/2016
SHEET 7 OF 7	

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

Job: _____  Part No. <u>RBT18004 Rev. 2</u>	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	<b>DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/>              Machining <input type="checkbox"/>              Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/>              Small Fab <input type="checkbox"/>              Finishing <input type="checkbox"/> </div> <div>             Eng. (Non-AW) <input type="checkbox"/>              Prod. Eng. Coord. <input type="checkbox"/>              Rec/Store/Packaging <input type="checkbox"/> </div> <div>             Engineering <input checked="" type="checkbox"/> <b>X</b>              Water Jet <input type="checkbox"/>              Supplier <input type="checkbox"/>              Quality <input type="checkbox"/> </div> </div>			
Date : _____	Sequence #: _____	QTY Affected : _____		<b>MRB (QSI042)</b>  Oct 25, 2018	
<b>Description Work Order Deviation</b>		<b>Disposition</b>		<b>Completed By</b>	
Replace 2 bolts installed on tool (RBT18004) RB429WA-CMM-62-2-2-2 with McMaster Carr 92620A702		This deviation is acceptable.  The fit, form and function of the part will be as originally intended.		Lead hand / Supervisor	
				QC / QA Coordinator	
<b>Root Cause</b>		<b>FAULT CATEGORY</b>			
<div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div>		<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced  <input type="checkbox"/> Bending  <input type="checkbox"/> Crushing  <input type="checkbox"/> Cracks  <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist  <input type="checkbox"/> Marks/Chatter  <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination  <input type="checkbox"/> Misaligned/off center  <input type="checkbox"/> BOM/Route  <input type="checkbox"/> Broken/Damage/Defect  <input type="checkbox"/> Incomplete/Unclear Instructions  <input type="checkbox"/> Drill Holes  <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Folio/Program  <input type="checkbox"/> Grain Direction  <input type="checkbox"/> Weld  <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Out of Sequence  <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong  <input type="checkbox"/> Outside Tolerance  <input type="checkbox"/> Drawing  <input type="checkbox"/> Finish  <input type="checkbox"/> Part Lost/Missing  <input type="checkbox"/> Misread         </div> </div>			